ABSTRACT OF THE DISCLOSURE

An automated logic circuit design system uses a common database to store design data at different states of the design process, including data-flow graphs, netlists and layout descriptions. In this way, the need to translate circuit descriptions between tools is eliminated, thus leading to increased speed, flexibility and integration. The common database includes entities, models, cells, pins, busses and nets. The data-flow graphs are stored as graphs, the nodes in a graph as cells, and the edges as busses. Physical design data is available by storing the cells in a model in a KD tree. This allows queries on cells in the netlist located in the layout within arbitrary areas.

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